SUBCHAPTER B : LOCATION STANDARDS

§309.10. Purpose, Scope and Applicability.

(a) This chapter establishes minimum standards for the location of domestic wastewater treatment facilities. These standards are to be applied in the evaluation of an application for a permit to treat and dispose of domestic wastewaters and sludges and for obtaining approval of construction plans and specifications. This chapter applies to domestic wastewater permit applications and construction plans and specifications filed on or after the effective date of the new rules, for new facilities and existing units which undergo substantial change for the continued purpose of domestic wastewater treatment and/or sludge disposal.

(b) The purpose of this chapter is to condition issuance of a permit and/or approval of construction plans and specifications for new domestic wastewater treatment facilities or the substantial change of an existing unit on selection of a site that minimizes possible contamination of ground and surface waters; to define the characteristics that make an area unsuitable or inappropriate for a wastewater treatment facility; to minimize the possibility of exposing the public to nuisance conditions; and to prohibit issuance of a permit for a facility to be located in an area determined to be unsuitable or inappropriate, unless the design, construction, and operational features of the facility will mitigate the unsuitable site characteristics.

§309.11. Definitions.

The following words and terms when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

Active geologic processes - Any natural process which alters the surface and/or subsurface of the earth, including, but not limited to, erosion (including shoreline erosion along the coast), submergence, subsidence, faulting, karst formation, flooding in alluvial flood wash zones, meandering river bank cutting, and earthquakes.

Aquifer - A geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs. Portions of formations, such as clay beds, which are not capable of yielding a significant amount of groundwater to wells or springs are not aquifers.

Erosion - The group of natural processes, including weathering, deterioration, detachment, dissolution, abrasion, corrosion, wearing away, and transportation, by which earthen or rock material is removed from any part of the earth's surface.

Existing facility - Any facility used for the storage, processing, or disposal of domestic wastewater and/or sludges and which has obtained approval of construction plans and specifications as of March 1, 1990.

New facility - Any domestic wastewater treatment facility which is not an existing facility.

"One hundred-year flood plain" - Any land area which is subject to a 1.0% or greater chance of flooding in any given year from any source.

Wastewater treatment plant unit - Any apparatus necessary for the purpose of providing treatment of wastewater (i.e. aeration basins, splitter boxes, bar screens, sludge drying beds, clarifiers, overland flow sites, treatment ponds or basins that contain wastewater, etc.).

Wastewater treatment plant sludges, screenings, and grit or Sludges - Any solid, semi-solid, or liquid residue that contains materials, organic or inorganic, removed during domestic wastewater treatment.

Wetlands - Those area that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

§309.12. Site Selection to Protect Groundwater or Surface Water.

The commission may not issue a permit for a new facility or the substantial change of an existing facility unless it finds that the proposed site, when evaluated in light of proposed design, construction or operational features, minimizes possible contamination of surface water and groundwater. In making this determination, the commission may consider the following factors:

(1) Active geologic processes such as flooding, erosion, subsidence, submergence and faulting;

(2) Groundwater conditions such as groundwater flow rate, groundwater quality, length of flow path to points of discharge and aquifer recharge or discharge conditions;

(3) Soil conditions such as stratigraphic profile and complexity, hydraulic conductivity of strata, and separation distance from the facility to the aquifer and points of discharge to surface water; and

(4) Climatological conditions.

§309.13. Unsuitable Site Characteristics.

(a) A wastewater treatment plant unit may not be located in the 100-year flood plain unless the plant is protected from inundation and damage that may occur during that flood event.

(b) A wastewater treatment plant unit may not be located in wetlands, except that wetlands may be used as a polishing unit for treated wastewater. (This prohibition is not applicable to constructed wetlands.)

(c) A wastewater treatment plant unit may not be located closer than 500 feet from a public water well nor 250 feet from a private water well.

(d) A wastewater treatment facility surface impoundment may not be located in areas overlying regional aquifers unless the regional aquifer is separated from the base of the containment structure by a minimum of 3 feet of material with a hydraulic conductivity toward the aquifer not

greater than 10^{-7} cm/sec or a thicker interval of more permeable material which provides equivalent or greater retardation of pollutant migration. A synthetic membrane liner may be substituted with a minimum of 30 mils thickness and an underground leak detection system with appropriate sampling points.

(e) Lagoons with zones of anaerobic activity (e.g. facultative lagoons) may not be located closer than 500 feet to the nearest property line. All other wastewater treatment plant units, excluding lift stations, may not be located closer than 150 feet to the nearest property line. Land used to treat primary effluent is considered a plant unit. Buffer zones for land used to dispose of treated effluent by irrigation shall be evaluated on a case-by-case basis. If the buffer zone requirement cannot be met by legal ownership on an undivided tract of land, one of the following alternatives shall be required:

(1) For a facility for which a permit application is made after the effective date of this section, if the facility will not meet the buffer zone requirement, the applicant shall include in the application for the discharge permit a request for a variance. A variance granted by the commission under this subsection shall be included as a condition in the new permit. Variances may be granted by the commission under the following circumstances:

(A) acceptable means of nuisance prevention is provided, such as enclosing the treatment plant in a structure designed and suitable for noise and odor abatement;

(B) the applicant possesses a restrictive easement on the part of the property in the buffer zone not owned by the applicant which prohibits a residential structure within the buffer zone; or

(C) other reasons that justice may require, consistent with the policies set out in the Texas Water Code, §26.003.

(2) For a facility for which a permit amendment application is made which involves a substantial design change to a wastewater treatment plant unit, if the facility will not meet the buffer zone requirement, the applicant shall include in the application for amendment a request for variance. Variances may be granted by the commission under the circumstances described in paragraph (1) of this subsection.

(3) For a permitted facility for which plans and specifications approval only is sought, if the facility will not meet the buffer zone requirement, the applicant shall apply to the executive director for a variance. Any variance granted by the executive director shall be stated in writing. If a variance request is denied by the executive director, a permittee may appeal, by application for a major permit amendment, to the commission, which may hear the appeal or remand the matter to the Office of Hearings Examiners for a hearing conducted in accordance with the Rules of the commission. Variances may be granted by the executive director under the following circumstances:

(A) acceptable means of nuisance prevention is provided, such as enclosing the treatment plant in a structure designed and suitable for noise and odor abatement;

(B) the applicant possesses a restrictive easement on the part of the property in the buffer zone not owned by the applicant which prohibits a residential structure within the buffer zone; or

(C) no residential structure is located within the buffer zone at the time the request is filed.

(4) For a permitted facility with plans and specifications approved prior to March 1, 1990, for which no design change is requested, the facility shall not be required to comply with these buffer zone requirements.

(5) Facilities for which plans and specifications have been approved prior to March 1, 1990 are not required to resubmit revised plans and specifications to meet changed requirements in this section.

(f) Storage and/or disposal of sludges in the 100-year flood plain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the flood plain, or result in washout of solid wastes.

(g) A sludge land treatment facility or landfill may not be located in wetlands.

(h) Buffer zones for the storage and/or disposal of sludges shall be evaluated on a case-by-case basis.

(i) A sludge landfill may not be located in areas overlying regional aquifers unless:

(1) It is an area where the average annual evaporation exceeds average annual rainfall by more than 40 inches and the depth to the regional aquifer is greater than 100 feet from the base of the containment structure; or

(2) The regional aquifer is separated from the base of the containment structure by a minimum of 3 feet with a hydraulic conductivity toward the aquifer not greater than 10^{-7} cm/sec or a thicker interval of more permeable material which provides equivalent or greater retardation to pollutant migration. A synthetic liner of equivalent permeability may be substituted with a minimum of 30 mils thickness and an underground leak detection system with appropriate sampling points.

§309.14. Prohibition of Permit Issuance.

(a) The commission may not issue a permit for a new wastewater treatment plant or for the substantial change of an existing plant if the facility or expanding facility does not meet the requirements of §309.13 of this title (relating to Unsuitable Site Characteristics).

(b) Nothing in this chapter shall be construed to require the commission to issue a permit, notwithstanding a finding that the proposed facility would satisfy the requirements of §309.12 of this title (relating to Site Selection to Protect Groundwater or Surface Water) and notwithstanding the

absence of site characteristics which would disqualify the site from permitting pursuant to §309.13 of this title (relating to Unsuitable Site Characteristics).

Date Effective: October 8, 1990